

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

14260.3

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on August 2, 2006Signature /Evan R. Witt/Typed or printed name Evan R. Witt

Application Number

10/706,168

Filed

11/12/2003

First Named Inventor

Stephen Donald Allen

Art Unit

1723

Examiner

Krishnan S. Menon

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 32,512

Registration number

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

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08/02/2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below.

☒ *Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/706,168 Confirmation No.: 7573
Applicant : Stephen Donald Allen et al.
Title : EXTRACTION METHODOLOGY FOR SUSPENDED AND
DISSLOVED MATERIAL FROM FRUIT AND
VEGETABLE WASTEWATER
Filed : November 12, 2003
TC/A.U. : 1723
Examiner : Krishnan S. Menon
Docket No. : 14260.3
Customer No. : 21999

REMARKS/ARGUMENTS SUPPORTING APPLICANTS'
PRE-APPEAL BRIEF REQUEST FOR REVIEW

This paper is submitted in response to the “final” Office Action mailed May 2, 2006 (herein “Final Office Action”). In the Office Action, the Examiner maintained his rejection of the present claims under § 103(a) as being unpatentable over U.S. Patent No. 5,560,831 issued to Bladen et al (hereinafter “Bladen”) in view of U.S. Patent No. 6,428,705 issued to Allen (hereinafter “Allen”). The Examiner also maintained his rejection of the claims under § 103 as being unpatentable over Allen in view of Bladen.¹

Applicants respectfully assert that the Examiner clearly erred in maintaining the rejection of the claims because the Examiner has not established *prima facie* obviousness. Specifically, the Examiner failed to establish *prima facie* obviousness because (1) all of the claimed limitations are not taught or suggested by the cited references; and/or (2) there is no teaching or suggestion to combine/modify the references in the manner asserted by the Examiner. Accordingly, because the Examiner has failed to establish *prima facie* obviousness, the Examiner’s rejection under §103(a) is improper and must be withdrawn.

I. **THE BLADEN AND ALLEN REFERENCES ARE NOT COMBINABLE**

Throughout prosecution, Applicants have explained that Bladen and Allen are not

¹ Claim 20 was rejected under § 103(a) as unpatentable over Bladen in view of Allen (and Allen in view of Bladen) and in further view of U.S. Patent No. 4,144,355 issued to Rawlings et al (hereinafter “Rawlings”).

properly combinable under § 103(a) because any proposed combination of these references would cause one of the references to become inoperable or unsatisfactory for its intended purpose.² See e.g., MPEP § 2143.01. As noted above, Bladen's system uses coagulant polymers, specifically anionic polyacrylamides, that when mixed with the "wastewater," produce a floatable "sludge." Bladen, col. 6, lines 58-62. From Applicants' past experience with anionic polyacrylamides, such coagulated materials are tacky and adhere to microfiltration membranes, rendering them unsuitable for microfiltration. Specifically, paragraph [0023] of Applicants' specification recites:

We studiously stayed away from the high molecular weight acrylamides, both anionic and cationic In the past we have seen some *serious adhesion of the reacted solids to the surface of the membrane* and such adhesion is contrary to the purpose of the invention.

(Emphasis added). Bladen's system, on the other hand, requires the coagulated materials to capture air molecules and float to the surface in the separation chamber. It is this floatation of the mass that allows Bladen's system to perform separation.

In contrast, Allen's process chemistry forms solid particles that are separated by microfiltration. Allen's waste particles do not float, but are dense and settleable. Indeed, Allen discloses that the solids gradually become packed on the membrane surface and are removed by backflushing. The "*rejected solids are gravity collected at the bottom of the filter vessel.*" Allen, col. 8, lines 20-24 (italics added). Allen's particles settle to the bottom and do not float. Because Allen's chemistry forms solid, non-viscous, non-tacky dense particles, if Bladen's process were modified to use Allen's process chemistry, then Bladen's process would be inoperable and incapable of performing its desired function because the resulting waste particles would not float. Likewise, because Bladen's chemistry forms a floating sludge that adheres to microfiltration membranes, if Allen's process were modified to use Bladen's process chemistry, then Allen's process would be inoperable and incapable of performing its desired function because the resulting waste particles would float (and not settle) and adhere to the microfiltration membrane. Accordingly, it is clear error for the Examiner to attempt to combine Bladen and Allen.

² These arguments will be explained herein in an abbreviated fashion in accordance with the page constraints associated with the present paper. However, Applicants incorporate by reference all of the prior arguments on this topic which are found on pages 11-14 of Applicants' Amendment dated April 11, 2006.

II. THE EXAMINER’S REASONING FOR COMBINING BLADEN AND ALLEN IS CLEARLY ERRONEOUS AND IGNORES THE PLAIN TEACHINGS OF THE REFERENCES

Unfortunately, the Examiner has failed to appreciate the significance of these express teachings of the cited references, and thus, the Examiner continues to try and combine Allen and Bladen. In maintaining this rejection, the Examiner clearly errs and relies upon faulty assumptions that are contradicted by the plain teachings of the references themselves.

For example, in the Final Office Action, the Examiner supports his combination of Bladen and Allen by asserting “[w]hether the particles settle or float is immaterial for the microfiltration process.” Final Office Action, p. 11. This statement ignores the express teaching of Allen which states that the particles collected by microfiltration must be solid, dense particles that may be “gravity collected at the bottom of the filter vessel.” Allen, col. 8, lines 20-24. Thus, Allen expressly contradicts the Examiner’s assertion and teaches that the particles must be solid, dense, non-floating particles in order for the microfiltration system to operate. This teaching also evidences that Bladen’s particles, which “float to the top of the first compartment to form a sludge,” cannot be used in a microfiltration system. Bladen, col. 6, lines 58-62. Accordingly, the Examiner’s arguments on this point are clearly and plainly erroneous.

Second, in the Final Office Action, the Examiner further asserts that “the particles in Allen and Bladen would have pretty much the same density, because the sources are similar, and the chemicals used are similar or the same.” Final Office Action, pp. 11-12. Again, this statement is unsupportable. If the particles in Bladen and Allen both “have pretty much the same density,” then these particles would either (1) both float or (2) both settle to the bottom of the container. The fact that Bladen’s particles float whereas Allen’s particles settle means that these particles clearly do *not* have the same densities. Accordingly, the Examiner’s logic on this issue is clearly erroneous.

The root of the Examiner’s erroneous assertions appears to be his erroneous belief that Bladen and Allen “use the same chemicals, and both processes are for food industry wastewater.” Final Office Action, p. 11. Similar chemicals are often used in differing processes with other different chemicals and under differing conditions in order to achieve different results. In the present case, Applicants have established that the

processes are different because they produce different results. Accordingly, any attempt to combine Bladen and Allen based upon a similar chemical that may be used in the processes is clearly erroneous.

This difference in the way the chemicals are used is especially evident given the different processes and water sources that are being treated by the Bladen and Allen processes. Bladen teaches treatment of water used to wash the outside of the fruits and vegetables, and thus it will contain pesticides, dirt, etc. Bladen, col. 1, lines 48-50 and 64-67; col. 5, lines 21-24. On the other hand, Allen teaches a process for treating food processing wastewater, which includes “meat and poultry feedlots and processing operations.” Animal feedlot operations are distinctly different than the fruit and vegetable processing operations of the present invention. In particular, wastewater from such animal processing operations contain a variety of contaminants including “large quantities of suspended organic solids, fats, coliform bacteria, and other organic foulants.” Allen, col. 6, lines 60-63. Such wastewater must be treated with one or more oxidizing agents to partially destroy the organic foulants and pathogens. Allen, col. 6, lines 63-65. Thus, given these extremely different types of processing operations, the chemicals that are being used are clearly designed to obtain different results (floatable sludge vs. filterable solid particles).

Moreover, the wastewater used in the present invention differs from the wastewaters of Bladen and Allen. The wastewater of the present invention includes relatively high solids and dissolved solid masses obtained from the processing of the fruit and vegetables. That is, the wastewater that may be processed in accordance with the present invention includes protein material to be recovered for future use or processing (as claimed), as well as pectins, peel, cellulosic compounds, lignands, and other related materials.

Accordingly, because the Examiner’s positions and arguments are refuted by the express teachings of the cited references, it is clearly erroneous for the Examiner to attempt to combine Bladen and Allen. The Examiner’s rejection based upon this combination is improper and should be withdrawn.

III. THE EXAMINER'S REASONING REGARDING "OPTIMIZATION" IS CLEARLY ERRONEOUS

In the prior Office Action response, the claims were amended to recite a "dwell time" that is between 5 and 30 minutes. This limitation is not taught or suggested by the cited references. Rather, the Allen patent, Example 9, reports a dwell time of at least 1.5 hours (10 minute hydrogen peroxide treatment, 20 minute slow addition of ferric chloride, one hour reaction time, plus the addition of sodium bisulfite, and epi-dma). The Bladen patent does not disclose a dwell time, but given that Bladen's process requires time for floatation separation, it is likely a lengthy dwell time.

Because the Examiner cannot find this limitation in the cited references, the Examiner argues that dwell times are "optimizable" and within the level of skill in the art. This position is clearly erroneous for the arguments set forth on page 16 of the Amendment and Response to Office Action dated April 11, 2006.

Finally, the equation recited in claims 6 and 21 would not have been obvious from the combined disclosure of Bladen and Allen. The Office Action acknowledges that the combined disclosure of Bladen and Allen fails to teach the equation, but according to the Examiner, the equation is merely "an optimum value of a result effective variable." Applicants respectfully disagree. The equation describes the complex interaction of three variables in wastewater: BOD, COD, and TSS. The discovery of this equation is not optimization of a result effective variable as described in the court decisions cited by the Examiner.

Respectfully submitted,

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